(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 23 October 2003 (23.10.2003)

PCT

(10) International Publication Number WO 2003/088232 A3

(51) International Patent Classification7: G11B 7/14, 20/10

(21) International Application Number:

PCT/IB2003/001348

(22) International Filing Date: 3 April 2003 (03.04.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 0208834.2

18 April 2002 (18.04.2002) GB

(71) Applicant (for all designated States except US): KONIN-KLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventor; and

(75) Inventor/Applicant (for US only): JBIRA, Arougg [MA/GB]; c/o Philips Intellectual Property & Standards, Cross Oak Lane, Redhill, Surrey RH1 5HA (GB).

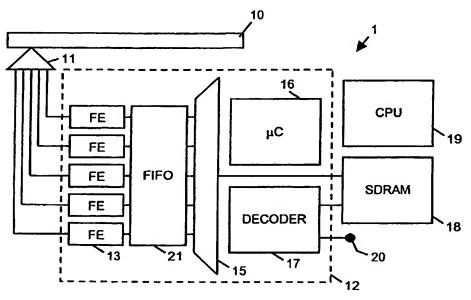
- (74) Agent: WHITE, Andrew; Philips Intellectual Property & Standards, Cross Oak Lane, Redhill, Surrey RH1 5HA (GB).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

[Continued on next page]

(54) Title: MULTITRACK OPTICAL DISC READER



(57) Abstract: A multitrack optical disc reader (1) is disclosed comprising a multitrack optical pick up (11) for reading data from multiple tracks of an optical disc (10) and outputting the data from each track in respective data streams, and multiple first-in-first-out (FIFO) memories (21) for temporarily storing the data streams. In accordance with the present invention, wherein the pickup may selectively output data streams from less than the maximum number of tracks that can be read by the pickup, the multiple FIFO memories are provided in a common memory bank, and when less than the maximum number of tracks are being read by the pickup, the size of at least one FIFO memory in use is greater than the total available FIFO memory in the common memory bank divided by the maximum number of tracks that can be read by the pickup.



(88) Date of publication of the international search report: 4 March 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

Int onal Application No Pui/IB 03/01348

A. CLASSIFICATION	OF SUB	JECT MATTER	
A. CLASSIFICATION IPC 7 G11	B7/14	G11B20/	'10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 7 G11B G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

	ENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of t	he relevant passages	Relevant to claim No.
X	US 6 137 763 A (DAHAN SHALOM 24 October 2000 (2000-10-24) abstract column 2, line 6 - line 18 column 3, line 25 -column 4, lclaims 1,6,21,25	ET AL)	1,2
Y A			3 5
	ther documents are listed in the continuation of box C.	X Patent family member	ers are listed in annex.
° Special co "A" docum consi "E" earlier filling of "L" docum which citatic "O" docum other	ent defining the general state of the art which is not dered to be of particular relevance document but published on or after the international date ent which may throw doubts on priority claim(s) or is cited to establish the publication date of another on or other special reason (as specified) tent referring to an oral disclosure, use, exhibition or means	"T" later document published or priority date and not in cited to understand the pinvention "X" document of particular relecannot be considered no involve an inventive step "Y" document of particular relecannot be considered to document is combined w	after the international filing date a conflict with the application but wrinciple or theory underlying the evance; the claimed invention are or cannot be considered to when the document is taken alone
"A" docum consi "E" earlier filing docum which citatic "O" docum other "P" docum later t	ent defining the general state of the art which is not dered to be of particular relevance document but published on or after the international date ent which may throw doubts on priority claim(s) or is cited to establish the publication date of another on or other special reason (as specified) then the published prior to the international filing date but than the priority date claimed	"T" later document published or priority date and not in cited to understand the pinvention "X" document of particular relecannot be considered no involve an inventive step "Y" document of particular relecannot be considered to document is combined we ments, such combination in the art. "&" document member of the	after the international filing date a conflict with the application but winciple or theory underlying the evance; the claimed invention when the document is taken alone evance; the claimed invention involve an inventive step when the ith one or more other such docunity of the part of the such docunity of the such documents of the such docu
"A" docum consi "E" earlier filling which citatic "O" docum other "P" docum later i	ent defining the general state of the art which is not dered to be of particular relevance document but published on or after the international date ent which may throw doubts on priority claim(s) or is cited to establish the publication date of another on or other special reason (as specified) lent referring to an oral disclosure, use, exhibition or means lent published prior to the international filing date but	"T" later document published or priority date and not in cited to understand the pinvention "X" document of particular relicannot be considered no involve an inventive step "Y" document of particular relicannot be considered to document is combined with ments, such combination in the art.	after the international filing date a conflict with the application but winciple or theory underlying the evance; the claimed invention when the document is taken alone evance; the claimed invention involve an inventive step when the ith one or more other such docunity of the conflict

INTERNATIONAL SEARCH REPORT

Inte onal Application No
PCT/IB 03/01348

		PCT/IB 03	/01348	
C.(Continua	ation) DOCUMENTS CONSIDERED TO BE RELEVANT			
Category °	Citation of document, with indication, where appropriate, of the relevant passages		Relevant to claim No.	
Y	"ALGORITHM FOR MANAGING MULTIPLE FIRST-IN, FIRST-OUT QUEUES FROM A SINGLE SHARED RANDOM-ACCESS MEMORY" IBM TECHNICAL DISCLOSURE BULLETIN, IBM CORP. NEW YORK, US, vol. 32, no. 3B, 1 August 1989 (1989-08-01), pages 488-492, XP000029766 ISSN: 0018-8689 the whole document		3	
1	WO 98 37554 A (ZEN RES NV) 27 August 1998 (1998-08-27) abstract page 11, line 28 -page 17, line 3; figures 2-5		1-5	٠
				
				-z~
	,			
	·			

INTERNATIONAL SEARCH REPORT

Information on patent family members

Int onal Application No
PCT/IB 03/01348

Patent document cited in search report		cation Ite	Patent family member(s)	F	Publication date
US 6137763	A 24-	LO-2000 AU	6193599	A 1	0-04-2000
		CA	2345321	A1 3	0-03-2000
		WO	0017873	A1 3	0-03-2000
		EP	1116232	A1 1	8-07-2001
		JP	2002525770	T 1	3-08-2002
WO 9837554	A 27-	08-1998 US	5907526	A 2	5-05-1999
		WO	9837554	A2 2	7-08-1998
		WO	9837555	A1 2	7-08-1998
		EP	1010171	A2 2	1-06-2000
	•	EP	1010172	A1 2	1-06-2000
	•	JP	2001511931	T 1	4-08-2001
		JP	2001511932	_	4-08-2001
		· US	6381210		0-04-2002
		US	6111831	•	9-08-2000